

## CONTENTS OF VOLUME 7

### NUMBER 1

BRIAN HITCHON: Guidelines for Review Series .....	iii
<b>Articles</b>	
JOHN A. C. FORTESCUE: Landscape geochemistry: retrospect and prospect—1990 .....	1
<b>Critical comments</b>	
STEPHEN L. BOLIVAR: Landscape geochemistry: retrospect and prospect—1990 .....	55
KNUT S. HEIER: Landscape geochemistry: retrospect and prospect—1990 .....	57
<b>Articles</b>	
ERIC W. MOUNTJOY, HAIRUO QING and ROBERT H. McNUTT: Strontium isotopic composition of Devonian dolomites, Western Canada Sedimentary Basin: significance of sources of dolomitizing fluids .....	59
WILLIAM J. TARUTIS JR, RICHARD F. UNZ and ROBERT P. BROOKS: Behavior of sedimentary Fe and Mn in a natural wetland receiving acidic mine drainage, Pennsylvania, U.S.A. ....	77
<b>Critical comments</b>	
WILLIAM J. WADE, CLYDE H. MOORE JR and ROGER SASSEN: New constraints on carbonate diagenesis from integrated Sr and S isotopic and rare earth element data, Jurassic Smackover Formation, U.S. Gulf Coast .....	87
EVA P. MOLDOVANYI, LYNN M. WALTER, JOYCE C. BRANNON and FRANK A. PODOSEK: New constraints on carbonate diagenesis from integrated Sr and S isotopic and rare earth element data, Jurassic Smackover Formation, U.S. Gulf Coast: a reply .....	93
Papers to appear in forthcoming issues .....	99
IAGC application form .....	I

### NUMBER 2

<b>Articles</b>	
A. J. PLATER, M. IVANOVICH and R. E. DUGDALE: Uranium series disequilibrium in river sediments and waters: the significance of anomalous activity ratios .....	101
J. D. MEUNIER, J. BRUHLET and M. PAGEL: Uranium mobility in the sediment-hosted uranium deposit of Coutras, France .....	111
L. B. WILLIAMS, B. R. WILCOXON, R. E. FERRELL and R. SASSEN: Diagenesis of ammonium during hydrocarbon maturation and migration, Wilcox Group, Louisiana, U.S.A. ....	123
P. VAN GIJZEL, C. R. ROBISON, M. A. SMITH, K. K. BISSADA, I. LERCHE and JIANCHANG LIU: Thermal history modeling of the Georges Bank, U.S.A.: thermal inversion of Transmittance Color Index (TCI) and Vitrinite Reflectance (VR) data .....	135
M. MINAGAWA: Reconstruction of human diet from $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ in contemporary Japanese hair: a stochastic method for estimating multi-source contribution by double isotopic tracers .....	145
D. R. VAN STEMPVOORT, P. FRITZ and E. J. REARDON: Sulfate dynamics in upland forest soils, central and southern Ontario, Canada: stable isotope evidence .....	159

M. DIETZEL, E. USDOWSKI and J. HOEFS: Chemical and $^{13}\text{C}/^{12}\text{C}$ - and $^{18}\text{O}/^{16}\text{O}$ -isotope evolution of alkaline drainage waters and the precipitation of calcite .....	177
J. GREENBERG and M. TOMSON: Precipitation and dissolution kinetics and equilibria of aqueous ferrous carbonate vs temperature .....	185
Papers to appear in forthcoming issues .....	191
IAGC application form .....	I

#### NUMBER 3

##### Articles

H. G. RICHARDS, D. SAVAGE and J. N. ANDREWS: Granite–water reactions in an experimental Hot Dry Rock geothermal reservoir, Rosemanowes test site, Cornwall, U.K. .....	193
D. SAVAGE, K. BATEMAN and H. G. RICHARDS: Granite–water interactions in a flow-through experimental system with applications to the Hot Dry Rock geothermal system at Rosemanowes, Cornwall, U.K. .....	223
H. PAUWELS, C. FOUILAC and A. CRIAUD: Water–rock interactions during experiments within the geothermal Hot Dry Rock borehole GPK1, Soultz-sous-Forêts, Alsace, France .....	243
B. R. T. SIMONEIT, W. D. GOODFELLOW and J. M. FRANKLIN: Hydrothermal petroleum at the seafloor and organic matter alteration in sediments of Middle Valley, Northern Juan de Fuca Ridge .....	257
M. I. SHEPPARD and D. H. THIBAULT: Chemical behaviour of iodine in organic and mineral soils .....	265
R. J. ROSENBAUER, J. L. BISCHOFF and Y. K. KHARAKA: Geochemical effects of deep-well injection of the Paradox Valley brine into Paleozoic carbonate rocks, Colorado, U.S.A. .....	273
L. HÄMÄLÄINEN and E. KONTAS: A potential systematic error in the analysis of gold samples stored in plastic containers .....	287
Papers to appear in forthcoming issues .....	289
IAGC application form .....	I

#### NUMBER 4

##### Articles

H. C. HELGESON: Calculation of the thermodynamic properties and relative stabilities of aqueous acetic and chloroacetic acids, acetate and chloroacetates, and acetyl and chloroacetyl chlorides at high and low temperatures and pressures .....	291
W. F. GIGGENBACH and R. CORRALES S.: Isotopic and chemical composition of water and steam discharges from volcanic–magmatic–hydrothermal systems of the Guanacaste Geothermal Province, Costa Rica .....	309
L. S. LAND and G. L. MACPHERSON: Geothermometry from brine analyses: lessons from the Gulf Coast, U.S.A. .....	333

P. C. SMALLEY, A. LØNØY and A. RÅHEIM: Spatial $^{87}\text{Sr}/^{86}\text{Sr}$ variations in formation water and calcite from the Ekofisk chalk oil field: implications for reservoir connectivity and fluid composition ...	341
E. MAZOR: Reinterpretation of $^{36}\text{Cl}$ data: physical processes, hydraulic interconnections and age estimates in groundwater systems .....	351
Y. YECHIELI, A. STARINSKY and E. ROSENTHAL: Evolution of brackish groundwater in a typical arid region: Northern Arava Rift Valley, southern Israel .....	361
J. A. SAUNDERS and C. T. SWANN: Nature and origin of authigenic rhodochrosite and siderite from the Paleozoic aquifer, northeast Mississippi, U.S.A. ....	375
Papers to appear in forthcoming issues .....	389
IAGC application form. ....	I

NUMBER 5

**Minerals for Future Materials**

**Selected Papers from the Symposium Sponsored by the  
International Association of Geochemistry and Cosmochemistry,  
held during the 15th General Meeting of the International Mineralogical  
Association, Beijing, P.R.C., 28 June–3 July 1990**

H. SØRENSEN: Minerals for future materials .....	391
<b>Articles</b>	
P. ČERNÝ: Geochemical and petrogenetic features of mineralization in rare-element granitic pegmatites in the light of current research .....	393
H. SØRENSEN: Agpaitic nepheline syenites: a potential source of rare elements .....	417
YUAN ZHONGXIN, BAI GE, WU CHENYU, ZHANG ZHONGQIN and YE XIANJIANG: Geological features and genesis of the Bayan Obo REE ore deposit, Inner Mongolia, China .....	429
E. C. T. CHAO, J. M. BACK, J. A. MINKIN and REN YINCHEN: Host-rock controlled epigenetic, hydrothermal metasomatic origin of the Bayan Obo REE–Fe–Nb ore deposit, Inner Mongolia, P.R.C. ....	443
B. M. SHMAKIN: Mineralogy and geochemistry of REE in granitic pegmatites, Baikal region, eastern Siberia, Russia .....	459
<b>Regular articles</b>	
F. BUZEK: Carbon isotope study of gas migration in underground gas storage reservoirs, Czechoslovakia .....	471
J. A. SCHRAMKE: Neutralization of alkaline coal fly ash leachates by $\text{CO}_2(\text{g})$ .....	481
Papers to appear in forthcoming issues .....	493
IAGC application form. ....	I

NUMBER 6

Articles

B. L. GULSON, S. E. CHURCH, K. J. MIZON and A. L. MEIER: Lead isotopes in iron and manganese oxide coatings and their use as an exploration guide for concealed mineralization .....	495
S. J. LAMBERT: Geochemistry of the Waste Isolation Pilot Plant (WIPP) site, southeastern New Mexico, U.S.A.....	513
A. HARTIKAINEN, I. HORVÁTH, L. ÓDOR, L. Ó. KOVÁCS and J. CSONGRÁDI: Regional multimedia geochemical exploration for Au in the Tokaj Mountains, northeast Hungary .....	533
X. QUEROL, J. L. FERNANDEZ TURIEL, A. LOPEZ SOLER and M. E. DURAN: Trace elements in high-S subbituminous coals from the Teruel Mining District, northeast Spain .....	547
J. M. BARRADAS, E. CARDOSO FONSECA, E. FERREIRA DA SILVA and H. GARCIA PEREIRA: Identification and mapping of pollution indices using a multivariate statistical methodology, Estarreja, central Portugal .....	563
P. D. MOSS, and W. M. EDMUND: Processes controlling acid attenuation in the unsaturated zone of a Triassic sandstone aquifer (U.K.), in the absence of carbonate minerals .....	573
<b>Book Review</b>	
M. GASCOYNE: The Environmental Behaviour of Radium.....	585
Papers to appear in forthcoming issues.....	587
IAGC application form.....	I
Indexes to Volume 7 .....	III

